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SAGE
ALERTING SYSTEMS, INC.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

ORIGINAL
FILE

August 11, 1992

Ms. Donna Searcy
Secretary
Federal Communication Commission
1919 M Street NW.
Washington, DC 20554

Re: Petition for Rule Making to Allocate Dedicated Frequencies
for the Emergency Broadcast System.

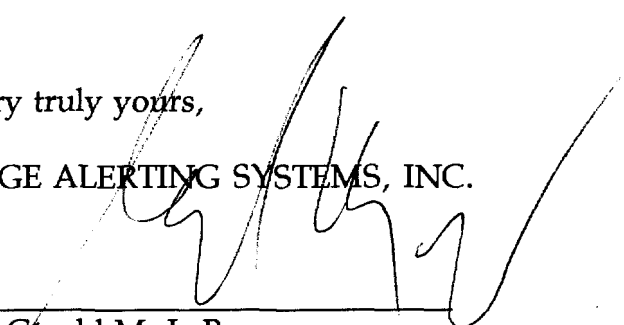
Dear Ms. Searcy:

Sage Alerting Systems, Inc. hereby transmits and files an original and
11 copies of its Petition for Rule Making.

Should there be any questions concerning the enclosure, kindly
communicate directly with me.

Very truly yours,

SAGE ALERTING SYSTEMS, INC.

By: 
Gerald M. LeBow
President

\nlm
enclosure

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700 Canal Street, Stamford, Connecticut 06902
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BEFORE THE FEDERAL COMMUNICATIONS COMMISSION

WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
Sage Alerting Systems, Inc.)
Request to amend part 2.106)
to add 8 frequencies for)
interconnection between)
emergency operating centers)
and radio, TV and cable)
facilities who are part of the)
Emergency Broadcast System.)

Petition for rule making

Gerald M. LeBow
Sage Alerting Systems, Inc.
700 Canal Street
Stamford, Connecticut 06902

August 11, 1992

PETITION FOR RULE MAKING

SUMMARY

Sage Alerting Systems, Inc. ("Sage") hereby requests that the Commission issue a Notice of Proposed Rule Making to allocate 4 frequencies in the 162 to 174 MHz band and 4 frequencies in the 406 to 420 MHz band for the primary and exclusive use of radio, television and cable facilities and local, state and federal agencies participating in the Emergency Broadcast System and any enhancements thereto. The Federal Communication Commission in it's Notice of Inquiry, 91-171, dated June 26, 1991 ("NOI"), solicited comments regarding the current Emergency Broadcast System. A number of technologies for improving the Emergency Broadcast System are being considered, including WRSAME, ICEBS and Sage/RDS. The Notice also addresses the issue of automatic activation of the EBS System and the question of technical standards for an improved EBS system.

Whatever technology the Commission adopts as it's improved EBS technical standards, it is clear from the NOI and the comments and reply comments related thereto, that an absolute need exists for interconnect frequencies dedicated exclusively for EBS use. Currently, RPU (Remote pick up) frequencies are commonly used for EBS connection from emergency actuation locations to broadcast facilities. In many cites, these frequencies are not usable because of excessive demand and worse yet, under current FCC rules, these frequencies are used on a transient basis by licensed broadcasters for a limited time periods. These uses render these frequencies virtually inaccessible and useless for emergency conditions.

The allocation of frequencies in the requested bands is desirable as these frequencies are currently allocated to Government agencies. The Commission will probably be releasing a Notice of Propose Rule Making on the possible improvements of the Emergency Broadcast System. This Petition for Rule Making could be an adjunct proceeding to that matter.

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Petition for rule making

Sage Alerting Systems, Inc. ("Sage") hereby requests that the Commission issue a Notice of Proposed Rule Making to allocate 4 frequencies in the 162 to 174 MHz band and 4 frequencies in the 406 to 420 MHz band for the primary and exclusive use of radio, television and cable facilities and local, state and federal agencies participating in the Emergency Broadcast System and any enhancements thereto.

I. INTRODUCTION

The Emergency Broadcast System in the United States was developed in the 1950's and modified in 1974 with the addition of the two tone signaling, which is currently in use. Time and time again the Emergency Broadcast System has failed to perform for a variety of reasons including human and technological limitations. Examples such as the San Francisco earthquake, hurricane Bob and hurricane Hugo are all examples of opportunities where the EBS system could have and should have served the public but failed to do so.

On June 26, 1991 the Federal Communication Commission released a Notice of Inquiry into possible improvements into Emergency Broadcast System under Fo Docket 91-171. The NOI raised numerous questions about procedural, operational and technical improvements that could be made to the Emergency Broadcast System.

Approximately 60 comments were made to this NOI. The comments dealt with issues such as automatic capturing of radio, TV, and cable facilities; unattended operation under a new EBS system; the daisy chain concept; system testing; targeting and addressiblility; and, in-band and out-of-band systems for enhancing or replacing the Emergency Broadcast System. Comments in that proceeding were also made about the availability of RPU frequencies, which are often used to link emergency operating centers to the mass media stations in their respective area.

Notwithstanding which technology or technologies the Commission chooses to enhance or replace the current Emergency Broadcast System, the need for dedicated radio frequencies for interconnection between emergency management agencies, emergency operating centers and the mass media is imperative to the success of EBS. Even the existing EBS system could benefit greatly by the allocation of additional frequencies to eliminate the unreliability of telephone lines and RPU frequencies under emergency conditions.

II. THE EMERGENCY BROADCAST SYSTEM- PROBLEMS IN ACTUATION

The Emergency Broadcast System currently mandates that all radio and TV stations participate in National Emergencies when communications is required by the President of the United States.

Participation in the EBS system is voluntary at the state and local level, however most stations do participate in the event severe hazards such as tornadoes, hurricanes, earthquakes and manmade disasters such as chemical and nuclear releases as well as major transportation accidents. The charter of the Emergency Broadcast System is to utilize the power of the mass media to reach as many people as quickly as possible in as short a period of time to deliver emergency information. Conceptually, this should allow for the rapid dissemination of information over a wide area in a short period of time.

Today, most EBS activation's are initiated by telephone calls from emergency operating centers to CPCS 1 stations. The current EBS System uses a daisy chain concept whereby a station called Common Program Control Station (CPCS1) triggers the EBS system by activating its two tone

generator. Numerous other stations monitor that station and when their EBS receivers are activated, these stations monitor the incoming message and if appropriate, rebroadcast it with the addition of their two tone signal. The responsible authorities including police, fire, county, state government and the National Weather Service may request activation of the EBS system and provide a message that they want broadcast.

An inherent weakness in this system is the likelihood that telephone circuits or RPU frequencies may be busy or destroyed in emergencies such as tornadoes or hurricanes, thereby preventing the activation of the CPCS-1 station and subsequently the other stations that are monitoring the CPCS 1 station. Numerous cases have been reported where radio station telephones have been constantly busy and inaccessible because of contests, other air activities or loss of telephone lines. If an emergency strikes at that moment, no means may exist for the responsible agency to reach the broadcaster. The uncertainty as to who receives the emergency telephone call at the radio station and whether it is passed to the appropriate station operator can also lead to confusion and delay in getting the messages out.

RPU frequencies have also failed to provide communications during emergencies. Notably, during the San Francisco earthquake, the RPU frequency generally used for emergency communications in the San Francisco area was being used by a network blimp to cover the world series. While this was a legal use of the frequency, it made that RPU frequency useless for emergency communications. This again highlights the need for dedicated frequencies exclusively for the use of EBS communications.

A further weakness of the current system is the requirement that messages passed by voice over telephone lines or RPU frequencies must be written down or recorded by the broadcaster. If written text could be sent directly to the operator, it would simplify the communications process. This would also make it possible for television and cable facilities to carry text messages on their video as well as audio channel to insure that the hearing impaired receive emergency alerts.

III SOLUTION TO EBS ACTUATION PROBLEMS

By designating frequencies for emergency broadcasting throughout the United States, the FCC can greatly enhance the EBS System. Emergency agencies and broadcasters would communicate over these designated frequencies. Accessibility would be insured and telephone connections would be minimized or eliminated. Written text could be sent and printed or displayed for accuracy and speed.

Sage has studied the EBS operational areas around the country to determine the approximate size and overlap of these EBS operational areas. It is necessary to insure that every operational area has at least two(2) frequencies, one for audio and one for data allocated to it. These frequencies can be reused throughout the country, however ample mileage separation is requested to insure that these channels are not utilized in a contiguous or adjacent area. We believe that at least four (4) pairs of frequencies would be desirable to insure that each EBS operating area would have its own audio and data channels from the emergency operation center to their designated broadcast and cable facilities.

The audio channel would be used to carry audio messages from responsible officials such as mayors, governors or emergency management coordinators to the mass media. The data channel would provide control capability for automatic and selective activation of the EBS system under new proposed systems, as well as a path for transmitting text information to radio, TV and cable facilities. The text of emergency messages would be sent on the data channel insuring the correct and accurate on-air message. The text could also be sent to TV and cable frequencies to insure that the hearing impaired are properly notified in times of emergencies by video message on TV and cable.

The data channel can also provide a closed circuit news and information service from emergency management agencies to the broadcasters. Not dissimilar to the EDIS system in Southern California, information can be sent via digital data over these radio channels directly to broadcasters to be displayed or printed at radio, TV and cable facilities. This capability would allow information to be passed to broadcasters and cable operators prior to, during and after emergencies so they can communicate with their audiences with the most up-to-date and accurate information.

The data channel would also allow for the selective activation of certain facilities in the network when only limited public alerting is required. An emergency operating center could assemble it's own quasi network of stations both TV, cable and radio as required based, on the area of impact and the public that needed to be alerted and warned. If an EBS replacement system such as RDS/EWS is adopted by the FCC, this selectivity can be carried down

to the public via the addressability inherent in the RDS/EWS system.

Selective alerting is a significant public benefit.

Under an automatic activation scheme as proposed in the Notice of Inquiry, broadcasters could have the option of carrying or not carrying an emergency broadcast at the local level. If a station chooses not to carry the message, the two way data channel could automatically communicate back to the emergency operating center indicating that the message was not transmitted.

IV. PUBLIC BENEFITS

The Emergency Broadcast System by its definition, provides the public with emergency information for all circumstances of natural and manmade disasters. It also provides to the President of the United States the ability to reach the entire Nation rapidly in times of National emergencies. It should be evident that anything which can improve the performance of the EBS system would be a major public benefit. Providing the requested radio communications frequencies between the emergency operating centers and the broadcast and cable facilities will compliment any enhancement of the EBS System.

V. FREQUENCIES REQUESTED

Sage Alerting Systems, Inc. is requesting 8 frequencies, four pairs, in the 162 to 174 and 406 to 420 MHz band. These frequencies can be 12.5 kHz channels in keeping with the band allocations. These channels should be

made available on an exclusive area basis usable only in conjunction with the Emergency Broadcast System. It would be desirable to have 4 frequencies in the 162 to 174 MHz band and 4 frequencies in the 406 to 420 MHz band. Should the commission not be able to find the desired frequencies in these bands, 8 frequencies either in the VHF or UHF or any combination thereof would be deemed acceptable. These frequencies would operate on a noninterference basis with existing services operating in these bands.

These requested frequencies would be two way and would probably require between 25 and 45 watts at each location. The frequencies would be 12.5 kHz channels with the audio channel in each pair designated F3E 12K5 and the data channel designated F1D 12K5. The data channel would be a two way channel providing confirmation to the emergency operating center(s) that the broadcast media had received and were responding to the request for activation.

VI. LICENSING ELIGIBILITY

Licensing eligibility for these requested EBS frequencies should be examined in this proceeding. Sage suggests that the FCC restrict primary license eligibility to federal, state and local government agencies who are empowered to activate the Emergency Broadcast System on a national or local basis. These agencies might be local fire departments, city governments, state governments or federal agencies such as the National Weather Service. Broadcasters and cable operators would also have to be secondarily licensed

to use this service as they will have to transmit data from their facilities back to the actuation location.

VI. CONCLUSION

As a result of the forgoing, Sage Alerting Systems, Inc. requests the Commission issue a Notice of Proposed Rule Making proposing to allocate 8 frequencies, 4 in the 162 to 174 MHz band and 4 in the 406 to 420 MHz bands exclusively for the purpose of providing audio and digital EBS interconnect communications between emergency operating centers at the local, state and federal level and mass media facilities including radio, television and cable.

Respectfully submitted,
Sage Alerting Systems, Inc.

By: _____

Gerald M. LeBow

President